

YW



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,430	03/29/2002	Aart Zeger van Halteren	47161-00031USPX	3407
30223	7590	03/11/2005	EXAMINER	
JENKENS & GILCHRIST, P.C. 225 WEST WASHINGTON SUITE 2600 CHICAGO, IL 60606			LE, HUYEN D	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/980,430  
Filing Date: March 29, 2002  
Appellant(s): VAN HALTEREN ET AL.

**MAILED**

MAR 11 2005

Technology Center 2600

JUSTIN D. SWINDELLS  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/06/2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

Art Unit: 2643

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because claim 28 is rejected under 35 USC 112, 2<sup>nd</sup> as being allegedly indefinite.

**(8) Claims Appealed**

Claim 28 contain substantial errors as presented in the Appendix to the brief.

Accordingly, claim 28 has correctly written in the Appendix to the Examiner's Answer. (See attached the corrected Appealed claims).

**(9) Prior Art of Record**

5861686	LEE	01-1999
5432758	SONE	07-1995
6,023,518	KUWABARA ET AL.	02-2000

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Art Unit: 2643

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, claims 8-9 and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. patent 5,861,686), and claims 8, 10-11, 27, 29-31 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Sone (U.S. patent 5,432,758). These rejections are set forth in a prior Office Action, mailed on 05/19/2004.

***Claim Rejections - 35 USC § 112***

1. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 is dependent on the withdrawn claim 12.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-9 and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. patent 5,861,686).

Regarding claims 8 and 31, Lee teaches a coil assembly for an electroacoustic transducer which comprises a coil (8) and an electric circuit board (3b, figures 1, 2, 3). As shown in the drawings, at least a surface portion of the electric circuit board is positioned against the coil in a

Art Unit: 2643

substantially perpendicular relationship to the axis of the coil (8). The electric circuit board includes signal processing electronics as claimed (col. 3, lines 65-67).

Regarding claims 9 and 32, Lee teaches the electric circuit board (3b) is flexible (col. 3, lines 41-42 and lines 49-51).

3. Claims 8, 10-11, 27, 29-31 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Sone (U.S. patent 5,432,758).

Regarding claim 8, Sone teaches a coil assembly for an electroacoustic transducer which comprises a coil (20) and electric circuit board (40, 42, 44, 48, 50, 52, figures 1, 2, 7, 8, 9). As shown in the drawings, at least a surface portion of the electric circuit board is positioned against the coil in a substantially perpendicular relationship to the axis of the coil (20).

Regarding claim 10, Sone teaches the printed circuit board which is rigid (col. 4, lines 15-18 and lines 27-33 and col. 6, lines 8-10).

Regarding claim 11, Sone shows the electric circuit board which includes an opening (58) as claimed.

Regarding claim 27, Sone teaches the surface portion of the electric circuit board which is positioned against the coil by adhesion (col. 4, lines 57-61 and col. 6, lines 61-68 through col. 7, lines 1-5).

Regarding claim 29, Sone teaches the electric circuit board which includes electronics for signal processing (col. 4, lines 30-41).

Regarding claim 30, Sone teaches the electric circuit board which is electrically connected to the coil (20) via lead wires (22, 24).

Art Unit: 2643

Regarding claim 31, Sone teaches a coil assembly for an electroacoustic transducer which comprises a coil (20) and an electric circuit board (40, 42, 44, 48, 50, 52, figures 1, 2, 7, 8, 9). As shown in the drawings, at least a surface portion of the electric circuit board is positioned against the coil in a substantially perpendicular relationship to the axis of the coil (20). Further, Sone teaches the electric circuit board which includes electronics for signal processing (col. 4, lines 30-41).

Regarding claim 33, Sone teaches the printed circuit board which is rigid (col. 4, lines 15-18 and lines 27-33 and col. 6, lines 8-10).

Regarding claim 34, Sone shows the electric circuit board which includes an opening (58) as claimed.

Regarding claim 35, Sone teaches the surface portion of the electric circuit board which is positioned against the coil by adhesion (col. 4, lines 57-61 and col. 6, lines 61-68 through col. 7, lines 1-5).

Regarding claim 36, Sone teaches the electric circuit board which is electrically connected to the coil (20) via lead wires (22, 24).

**(11) Response to Argument**

Responding to the arguments about claim 28, since the amendment after final filed on July 19, 2004 has not been entered, claim 28 is still rejected under 35 U.S.C. 112, 2<sup>nd</sup> as mentioned above. Also see the attached index of the Appealed claims.

Responding to the arguments about that "Sone does not disclose the claimed electric circuit board", the Applicant should note that claims 8 and 31 do not claim a specific

Art Unit: 2643

construction and/or functions of an electric circuit board that are different from the circuit board of Sone, as broadly claimed, Sone does teach an electric circuit board that comprises a board (4, 40, 42, 44, 48) with electrical terminals or electrically conductive patterns (50, 52, 22, 24) on its surfaces (also see col. 4, lines 31-34 and lines 36-40 and col. 6, lines 65-67).

Responding to the arguments about the printed board (62) in Sone, this board (62) is just another board in the Sone device, and it is not included in the Office Action.

Responding to the arguments about the flexible circuit board, the examiner has dropped the rejections for claims 9 and 32 in Sone.

Responding to arguments in claims 11 and 34, as mentioned in the Office Action, Sone teaches an opening (58) that is substantially aligned with the coil opening (figures 1, 2).

Responding to the arguments about claim 36 (and claim 30), the Applicant should note that the printed circuit board (62) is not included in the Office Action. As mentioned above, Sone does teach the electric circuit board that is electrically connected to the coil via lead wires as claimed (22, 24, also see col. 4, lines 57-61 and col. 6, lines 61-68 through col. 7, lines 1-5).

Responding to the arguments about that "Lee does not even show a circuit board", the examiner refers to the Office Action. Further Lee does disclose that the second vibration member (3b) is used as a circuit board for the coil (col. 3, lines 50-52). This vibration member (3b) is made of a synthetic resin (col. 3, lines 40-41) and has the electrical terminals (13b, 33b, and 43b) on its surface.

Responding to the arguments about Kuwabara, the examiner has dropped the rejections under Kuwabara in the Office Action.

Art Unit: 2643

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



HUYEN LE  
PRIMARY EXAMINER

HL

March 4, 2005

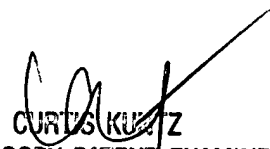
h Conferees

~~Suhan Ni~~

Curtis Kuntz

Sinh Tran

JENKENS & GILCHRIST, P.C.  
225 WEST WASHINGTON  
SUITE 2600  
CHICAGO, IL 60606



CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600



SINH TRAN  
SUPERVISORY PATENT EXAMINER



**Application Serial No. 09/980,430, filed March 29, 2002**  
**APPEALED CLAIMS**

8. A coil assembly for an electroacoustic transducer, comprising:  
a coil having a coil opening defining an axis therethrough; and  
an electric circuit board wherein at least a surface portion thereof is  
positioned against said coil in a substantially perpendicular relationship to said axis.
9. The coil assembly of claim 8, wherein said electric circuit board is  
flexible.
10. The coil assembly of claim 8, wherein said electric circuit board is rigid.
11. The coil assembly of claim 8, wherein said electric circuit board includes  
an opening, said opening of said electric circuit board being substantially aligned with  
said coil opening.
27. The coil assembly of claim 8, wherein said surface portion of said electric  
circuit board is positioned against said coil by adhesion.
28. The coil assembly of claim <sup>12</sup>~~27~~, wherein said adhesion is glue.
29. The coil assembly of claim 8, wherein said electric circuit board includes  
electronics for signal processing.
30. The coil assembly of claim 8, wherein said electric circuit board is  
electrically connected to said coil via lead wires.
31. A coil assembly for an electroacoustic transducer, comprising:  
a coil having a coil opening defining an axis therethrough; and

an electric circuit board wherein at least a surface portion thereof is positioned against said coil in a substantially perpendicular relationship to said axis, said electric circuit board including signal processing electronics.

32. The coil assembly of claim 31, wherein said electric circuit board is flexible.

33. The coil assembly of claim 31, wherein said electric circuit board is rigid.

34. The coil assembly of claim 31, wherein said electric circuit board includes an opening, said opening of said electric circuit board being substantially aligned with said coil opening.

35. The coil assembly of claim 31, wherein said surface portion of said electric circuit board is positioned against said coil by adhesion.

36. The coil assembly of claim 31, wherein said electric circuit board is electrically connected to said coil via coil lead wires.